

Application by West Cumbria Mining Ltd

Planning Inspectorate Reference: APP/H0900/V/21/3271069

Local Planning Authority Reference: 4/17/9007

Oral evidence by

Dr Stuart Parkinson, Scientists for Global Responsibility

<https://www.sgr.org.uk/>

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Thank you for the opportunity to speak to this inquiry.

I am Dr Stuart Parkinson, speaking on behalf of Scientists for Global Responsibility.

I am speaking *in opposition* to the application from West Cumbria Mining Ltd – and full references for my statement will be provided in the written transcript.

- I am an environmentalist scientist, with 30 years' experience of research and advocacy work on climate change and energy issues. My scientific background includes: a PhD in climate science from Lancaster University; five years as a research fellow in climate and energy policy at Surrey University; a year as an expert reviewer for the Intergovernmental Panel on Climate Change; and 18 years in my current post as executive director of Scientists for Global Responsibility, a UK research and advocacy organisation which has its main office in Lancaster, and has approximately 700 members, including energy and climate experts.
- In particular, my work at Surrey University involved assessing the carbon emissions of energy and industrial projects, and critiquing the methods used. This work was undertaken in collaboration with government, industry, and civil society organisations – and has particular relevance for this submission, as I will outline shortly.
- The main grounds on which Scientists for Global Responsibility objects to the planning application is that it will fuel global climate change, especially undermining UK and international commitments under the 2015 Paris Climate Agreement. Specifically, our concerns are as follows.

- The application states that a total of nearly 2.8 million tonnes of coal will be extracted per year during the main production phase, all for use in steel-making. It is aimed that the lifetime of the mine will be over 25 years. Based on the latest official figures for emission factors, we estimate that the combustion of the coal from this mine will lead to emissions of approximately 8.8 million tonnes of carbon dioxide equivalent each year during the main production phase.¹ To be clear about the scale of these emissions, they are currently similar to the annual carbon emissions of about *1.3 million British citizens*² - so it is large source.
- The application argues that carbon emissions from the use of the Cumbrian coal in steel-making can be disregarded because this coal will perfectly substitute for coal imported to the UK and mainland Europe from the USA. In other words, the application argues that extraction and use of an equivalent amount of US coal would completely cease for over 25 years *solely due to this project*. This argument is not credible – it is an example of what is called ‘substitution error’. Prof Paul Ekins explains the problem in more detail in his evidence³ but, in short, it means ignoring the well-established evidence on the economics of resource use – and this evidence is widely accepted in academic climate change circles. In this particular case, it ignores the very high likelihood that any displaced US coal will be used in other steel-making markets in the USA, Asia or elsewhere internationally.
- When I was a research fellow at Surrey University, my work involved critiquing carbon emission assessment methodologies such as those used in this application – especially the use of baseline or ‘do nothing’ projections. The view we formed during our work – which remains valid today – was that baseline-setting was inherently uncertain and vulnerable to misapplication by project developers and any consultants they engaged. One indicator of poor practice was the use of a baseline whose length was greater than 10 years.⁴ Since the developers and their consultants have needed to use a baseline of *over 25 years* to help justify this project, in our view, demonstrates major flaws in the methodology used. Other witnesses to this inquiry will provide in-depth evidence demonstrating that the assumptions made in this baseline – such as high demand for coking coal from this mine in the UK and EU up to 2049 – are not reliable. These flawed assumptions include:
 - a. Sufficient demand for coking coal with the significant levels of sulphur found in the West Cumbrian coal seams;

- b. Slow uptake of alternative low- and zero-carbon methods for producing steel, such as electric arc furnaces and hydrogen direct reduction; and
 - c. A lack of commitment by UK and EU governments to reducing carbon emissions from steel and other industrial sectors in line with the targets laid out in the Paris Agreement.
- Since submitting my written evidence, a new study⁵ has been published in the leading academic journal, *Nature*, by a researcher from Columbia University in the USA – and I think this is also relevant to this inquiry. It attempts to estimate the number of climate change-related deaths worldwide which would result from each additional tonne of carbon dioxide emitted to the atmosphere. Using figures from this study, I estimate that the combustion of a *single year's* worth of coal from this mine would lead to about 2,000 additional deaths. So 25 years' worth of coal would lead to an additional 50,000 deaths. This is about *100 extra deaths for each mining job* that the developer is claiming to create. And note that this is a conservative estimate of the number of extra deaths – it only includes deaths due to increases in heat stress – which are the easiest to measure and predict. It does not include additional deaths due to, for example, increases in storms, floods or wildfires. It does not include additional deaths due to increases in crop failures or famine – or due to increases in the spread of infectious diseases – or due to increases in political instability or conflict. All these impacts are predicted to increase markedly with climate change – but they are not included in my estimate of extra deaths due to this coal mine. I also have not included the operational carbon emissions of the mine in my calculations – nor additional deaths that would arise from local air pollution which would arise from burning this coal. So I repeat it is a conservative estimate.
- A key element for consideration in this planning inquiry is how much weight to put on the climate change arguments. Here we have clear guidance from policy-makers and scientific bodies – and here I want to mention some that have not received much attention in this inquiry so far. For example:
 - a. The International Energy Agency has pointed out⁶ that no new coal mines – *of any sort* – should be opened if we are to keep within the Paris targets;

- b. The G7 Heads of Government⁷ – as well as UK and EU governments – have identified decarbonisation of the iron and steel sector as critical;
 - c. The Chair of the Climate Change Committee – official advisory body to the UK government – has highlighted the “critical importance” of the climate issue for all planning authorities – and specifically in relation to this coal mine.⁸
- One final issue I would like to briefly touch on is the issue of jobs. According to the latest figures from the Office for National Statistics,⁹ UK employment in the low carbon and renewable energy economy stands at about 202,000 direct full-time equivalent jobs. In contrast, official figures¹⁰ for current jobs in coal mining in the whole of Britain stand at just 700 – 1/300th of the low carbon sectors. Last autumn, the government announced an extra £12 billion for its ‘Ten Point Plan for a Green Industrial Revolution’.¹¹ It is clear where the future of the UK jobs market lies, so I struggle to understand why local decision-makers in West Cumbria are not focusing on trying to increase the share of this jobs market rather than supporting the opening a new coal mine.
- In summary, global climate change is arguably the largest threat that the world currently faces. This is recognised by the UK government, EU governments and United Nations bodies. We need rapid transition to a net zero carbon society. A huge new coal mine in West Cumbria will seriously undermine this. Claims that the coal mine would be net-zero are not backed by robust evidence. Yet the job creation which is currently underway in the low and zero-carbon sectors – including in the steel sector – offers major opportunities for the UK economy, including West Cumbria. This is the future we should be focused on.
- Scientists for Global Responsibility therefore strongly urges the Inspector to recommend rejection of this coal mine application.

Key references [not read out]

1 The application states that 2.78 million tonnes (Mt) of metallurgical coal for iron and steel production would be extracted per year during the main production phase. Each tonne of metallurgical coal emits 3.17 tonnes of carbon dioxide equivalent (tCO₂e) during its use. Hence the use of the coal from this mine would lead to emissions of approximately 8.80 MtCO₂e each year. GHG conversion factors can be found in: BEIS (2021). 2021 Government GHG Conversion Factors for Company Reporting. Department for Business, Energy and Industrial Strategy. <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>

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- 2 The latest official figures for UK territorial GHG emissions are for 2019, when they were 454.8 MtCO₂e, with a corresponding population of 67.53 million. Data sources: Department for Business, Energy and Industrial Strategy (2021). Final UK greenhouse gas emissions national statistics: 1990-2019. <https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-to-2019> and Our World in Data (2021). UK population. <https://ourworldindata.org/grapher/projected-population-by-country?country=~GBR>
- 3 Ekins P (2021). Proof of evidence. <https://slacc.org.uk/wp-content/uploads/2021/08/SLACC-Ekins-Proof-of-Evidence-10-8-21-FINAL.pdf>
- 4 See, for example: Jackson T, Begg K, Parkinson S (2001). Flexibility in Climate Policy: Making the Kyoto Mechanisms Work. Earthscan.
- 5 Bressler R (2021). The mortality cost of carbon. Nature Communications, vol.12, p.4467. <https://www.nature.com/articles/s41467-021-24487-w>
- 6 IEA (2021). Net Zero by 2050: A Roadmap for the Global Energy Sector. p.30. <https://www.iea.org/reports/net-zero-by-2050>
- 7 UK Cabinet Office (2021). Carbis Bay G7 Summit Communique. p.15. <https://www.gov.uk/government/publications/carbis-bay-g7-summit-communique>
- 8 Climate Change Committee (2021). Letter: Deep Coal Mining in the UK. <https://www.theccc.org.uk/publication/letter-deep-coal-mining-in-the-uk/>
- 9 Office for National Statistics (2021). Low carbon and renewable energy economy, UK: 2019. <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/latest>
- 10 Our World in Data (2021). Employment in the coal industry in the United Kingdom. <https://ourworldindata.org/grapher/employment-in-the-coal-industry-in-the-united-kingdom>
- 11 BEIS et al (2020). The ten point plan for a green industrial revolution. <https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution>